UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/770,092	02/02/2004	Tae-jin Ahn	YPL-0078	9277

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EXAMINER
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ART UNIT	PAPER NUMBER
1631	

MAIL DATE	DELIVERY MODE
09/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

Advisory Action Before the Filing of an Appeal Brief	Application No.	Applicant(s)
	10/770,092	AHN, TAE-JIN
	Examiner	**Art Unit**	
	Carolyn L. Smith	1631	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>17 September 2007</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

    a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

    b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

    Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____ . A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

    (a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);

    (b) ☐ They raise the issue of new matter (see NOTE below);

    (c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

    (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

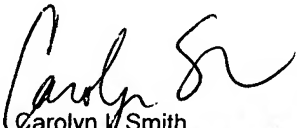   NOTE: *See Continuation Sheet.* (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____ .

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

    The status of the claim(s) is (or will be) as follows:

    Claim(s) allowed: _____ .

    Claim(s) objected to: _____ .

    Claim(s) rejected: <u>*1-9 and 19*</u>.

    Claim(s) withdrawn from consideration: <u>*10-18*</u>.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: <u>See Continuation Sheet.</u>

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____ .

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Art Unit: 1631   9/24/07

Continuation of 3. NOTE: The proposed amendments contain new issues, such as "compressed" on line 4 of claim 1, "each character in a string of characters" on lines 17-18 of claim 1, "length of the extracted difference" on lines 5-6 of claim 2, and "comprises a ROM, RAM, a CD-ROM, a magnetic tape, a floppy disk, or an optical storage medium" on the last two lines of claim 19.

Continuation of 11. does NOT place the application in condition for allowance because: the proposed claim amendments contain new issues that would require further search and/or consideration. Because the proposed amendments have not been entered, all of the rejections in the FINAL office action, mailed 6/15/07, are maintained.
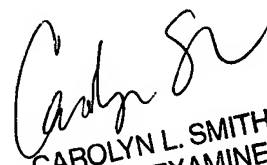
Applicant's arguments regarding the 35 USC 112, 1st NEW MATTER rejections, 35 USC 112, 2nd rejections, and 35 USC 102 rejection are based on proposed amendments that have not been entered and are therefore unpersuasive.

35 USC 103 rejection (Grumbach et al. in view of Robson et al.)
Applicant summarizes Robson et al. and argues that Robson et al. do not teach converting an extracted difference between the reference sequence and the subject sequence into a string of characters. This statement is found unpersuasive as Grumbach et al. describe using a dictionary containing already encoded factors (page 879, third paragraph) that represents predetermined conversion codes. Grumbach et al. disclose having a start position and matching the factor at the current position followed by outputting a codeword (page 881, second paragraph), alignment algorithms working directly on compressed DNA sequences (page 886, first paragraph), compression algorithms including a vertical mode, where a DNA sequence A is compressed with respect to another sequence B with output containing information to construct sequence A from sequence B (page 876, fifth paragraph), and using codewords to encode strings and arithmetic encoding (page 876, third paragraph and page 879, first paragraph). Applicant argues that Robson et al. do not describe that the extracted difference comprises a start region mismatch between the reference sequence and the subject sequence; a blank representing there is no base in a base position in the subject sequence corresponding to the reference sequence; a single base pair mismatch between the reference sequence and the subject sequence; a base insertion into the subject sequence; a multiple base pair mismatch between the reference sequence and the subject sequence, or an end region mismatch between the reference sequence and the subject reference. This statement is found unpersuasive as Robson et al. describe using 4 bit codes which correspond to characters including the start or end of the sequence, continue to read (occurring in succession), ending, sequence separator (i.e. distance between start and end position), matches, codes for purines and pyrimidines (i.e. A, G, C), and various other characters (page 287, column 1, last paragraph to column 2, first paragraph). Robson et al. describe using code to signify differences and their number, such as unknowns, blanks, and deletions (page 287, first column). Applicant's arguments are deemed unpersuasive for the reasons given above.

35 USC 103 rejection (Grumbach et al. in view of Selifonov et al.)
Applicant's arguments are based on proposed claim amendments that have not been entered and are therefore unpersuasive.

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PRIMARY EXAMINER
9/24/07